ABSTRACT OF THE DISCLOSURE

The invention relates to novel nucleic acids encoding a fibroblast growth factor-23(FGF23) and proteins encoded thereby, mutations in which are associated with autosomal dominant rickets (ADHR). The invention further relates to methods of diagnosing and treating hypophosphatemic and hyperphosphatemic disorders comprising inhibiting or stimulating, respectively, the biological activity of FGF23 in a patient. The invention also relates to methods of treating osteoporosis, dermatomyositis, and coronary artery disease comprising stimulating the biological activity of FGF23 in a patient.